

=> d his

(FILE 'USPAT' ENTERED AT 16:08:31 ON 25 MAY 1998)
 L1 0 (NONCONTACT? OR NON-CONTACT?) (2A) (CREDIT(W)CARD)
 L2 0 (NONCONTACT? OR NON-CONTACT?) (5A) (CREDIT(W)CARD)
 L3 1 (NONCONTACT? OR NON-CONTACT?) (10A) (CREDIT(W)CARD)
 L4 74870 RF OR (RADIO(2A) FREQUENCY)
 L5 0 L3 AND L4

=> credit(w)card

9746 CREDIT
 50805 CARD
 L6 5527 CREDIT(W)CARD

=> 14 and 16

L7 618 L4 AND L6

=> none-contact? or noncontact? or non-contact?

175318 NONE
 1003267 CONTACT?
 8 NONE-CONTACT?
 (NONE(W)CONTACT?)
 3206 NONCONTACT?
 832992 NON
 1003267 CONTACT?
 12448 NON-CONTACT?
 (NON(W)CONTACT?)
 L8 14883 NONE-CONTACT? OR NONCONTACT? OR NON-CONTACT?

=> 17 and 18

L9 36 L7 AND L8

=> d 19 1-

1. 5,748,737, May 5, 1998, Multimedia electronic wallet with generic card; Robert N. Daggar, 380/24, 235/379, 380, 380/23, 25, 49, 50 [IMAGE AVAILABLE]
2. 5,745,555, Apr. 28, 1998, System and method using personal identification numbers and associated prompts for controlling unauthorized use of a security device and unauthorized access to a resource; Andrew R. Mark, 235/380, 379/67, 355, 361 [IMAGE AVAILABLE]
3. 5,736,935, Apr. 7, 1998, Keyless vehicle entry and engine starting system; George P. Lambropoulos, 340/825.69, 123/179.2, 179.3, 340/825.31, 825.72, 477/99 [IMAGE AVAILABLE]
4. 5,732,133, Mar. 24, 1998, System and method for selecting and generating telephone access numbers for limiting access to a telephone service; Andrew R. Mark, 379/355, 93.02, 196, 201, 280, 288 [IMAGE AVAILABLE]
5. 5,731,116, Mar. 24, 1998, Electrostatic information recording medium and electrostatic information recording and reproducing method; Makoto Matsuo, et al., 430/56, 48, 60, 66 [IMAGE AVAILABLE]
6. 5,718,996, Feb. 17, 1998, Electrostatic information recording medium and electrostatic information recording and reproducing method; Masayuki Iijima, et al., 430/56, 20, 48 [IMAGE AVAILABLE]
7. 5,708,423, Jan. 13, 1998, Zone-based asset tracking and control system; Touraj Ghaffari, et al., 340/825.35, 572, 825.31, 825.34 [IMAGE AVAILABLE]
8. 5,682,032, Oct. 28, 1997, Capacitively coupled identity verification and escort memory apparatus; Harald Philipp, 235/492, 487 [IMAGE AVAILABLE]
9. 5,675,452, Oct. 7, 1997, Thin data storage device having a flexible recordable disk and recording heads arranged on both sides of the disk; Anil Nigam, 360/97.02, 99.01, 99.08 [IMAGE AVAILABLE]
10. 5,661,457, Aug. 26, 1997, Directional antenna configuration for asset tracking system; Touraj Ghaffari, et al., 340/572, 523, 825.34, 990, 342/417, 343/742 [IMAGE AVAILABLE]
11. 5,640,002, Jun. 17, 1997, Portable RF ID tag and barcode reader; Jonathan Paul Ruppert, et al., 235/472, 383, 462, 492, 493 [IMAGE AVAILABLE]
12. 5,638,103, Jun. 10, 1997, Method for recording and reproducing information, apparatus therefor and recording medium; Hiroyuki Obata, et al., 347/164 [IMAGE AVAILABLE]
13. 5,587,264, Dec. 24, 1996, Electrostatic information recording medium and electrostatic information recording and reproducing method; Masayuki Iijima, et al., 430/57, 31, 48, 60, 62 [IMAGE AVAILABLE]
14. 5,583,933, Dec. 10, 1996, Method and apparatus for the secure communication of data; Andrew R. Mark, 379/355, 235/380, 379/93.28, 257, 354, 361, 418, 444, 380/9 [IMAGE AVAILABLE]
15. 5,563,491, Oct. 8, 1996, Combined parking meter and electric-vehicle battery charger with remote status receiver; Ling-yuan Tseng, 320/109, 194/904 [IMAGE AVAILABLE]
16. 5,550,358, Aug. 27, 1996, Non-contacting transaction system; Robert A. R. Tait, et al., 235/380, 379, 382 [IMAGE AVAILABLE]
17. 5,525,993, Jun. 11, 1996, Microwave noncontact identification

transponder using subharmonic interrogation and method of using the same; Carl W. Pobanz, et al., 342/51, 44 [IMAGE AVAILABLE]

18. 5,484,997, Jan. 16, 1996, Identification card with RF downlink capability; George W. Haynes, 235/492, 22 [IMAGE AVAILABLE]

19. 5,471,203, Nov. 28, 1995, Admission managing system; Michiyuki Sasaki, et al., 340/825.31; 235/382; 340/572, 825.54 [IMAGE AVAILABLE]

20. 5,468,947, Nov. 21, 1995, Pocket size data capture unit with processor and shell modules; Arvin D. Danielson, et al., 235/472, 462 [IMAGE AVAILABLE]

21. 5,439,768, Aug. 8, 1995, Electrostatic information recording medium and electrostatic information recording and reproducing method; Makoto Matsuo, et al., 430/56, 45, 46, 48, 60, 66 [IMAGE AVAILABLE]

22. 5,377,060, Dec. 27, 1994, Ultra slim data storage module utilizing plural flexible disks; Anil Nigam, 360/99.01, 98.02 [IMAGE AVAILABLE]

23. 5,300,875, Apr. 5, 1994, Passive (non-contact) recharging of secondary battery cell(s) powering RFID transponder tags; John R. Tuttle, 320/138 [IMAGE AVAILABLE]

24. 5,253,162, Oct. 12, 1993, Shielding field method and apparatus; John J. Hassett, 342/457; 235/384; 340/825.35, 928; 705/13 [IMAGE AVAILABLE]

25. 5,241,161, Aug. 31, 1993, Smart card integrated in a wristwatch and having logic unit controlling the automatic identification process and the data transfer; Marc Zuta, 235/382, 484 [IMAGE AVAILABLE]

26. 5,227,614, Jul. 13, 1993, Core computer processor module, and peripheral shell module assembled to form a pocket size data capture unit; Arvin D. Danielson, et al., 235/380, 439, 462, 472; 382/315 [IMAGE AVAILABLE]

27. 5,196,846, Mar. 23, 1993, Moving vehicle identification system; William K. Brockelsby, et al., 340/933, 825.34, 825.54, 905; 342/42, 44 [IMAGE AVAILABLE]

28. 5,164,732, Nov. 17, 1992, Highway vehicle identification system with high gain antenna; William K. Brockelsby, et al., 342/44; 235/384; 340/505, 825.54, 933, 935, 988; 342/45, 50, 51 [IMAGE AVAILABLE]

29. 5,161,233, Nov. 3, 1992, Method for recording and reproducing information, apparatus therefor and recording medium; Makoto Matsuo, et al., 399/136; 355/77; 430/48 [IMAGE AVAILABLE]

30. 5,153,842, Oct. 6, 1992, Integrated circuit package label and/or manifest system; Daniel F. Dlugos, Sr., et al., 364/478.15; 235/380 [IMAGE AVAILABLE]

31. 5,144,553, Sep. 1, 1992, Electronic vehicle toll collection system and method; John J. Hassett, et al., 705/13; 235/384; 340/928 [IMAGE AVAILABLE]

32. 5,132,687, Jul. 21, 1992, Electronic identification system; Howard A. Baldwin, et al., 342/44, 50, 51 [IMAGE AVAILABLE]

33. 5,086,389, Feb. 4, 1992, Automatic toll processing apparatus; John J. Hassett, et al., 705/13; 235/384; 340/928 [IMAGE AVAILABLE]

34. 4,941,172, Jul. 10, 1990, Preprogrammed autodialer and related process; Jacob J. Winebaum, et al., 379/355, 352 [IMAGE AVAILABLE]

35. 4,937,581, Jun. 26, 1990, Electronic identification system; Howard A. Baldwin, et al., 342/44; 235/384; 340/825.54, 825.83; 342/45, 50, 51 [IMAGE AVAILABLE]

36. 4,870,419, Sep. 26, 1989, Electronic identification system; Howard A. Baldwin, et al., 342/50; 340/505, 825.54, 825.83; 342/51 [IMAGE AVAILABLE]

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(FILE 'USPAT' ENTERED AT 16:08:31 ON 25 MAY 1998)
L1      0 (NONCONTACT? OR NON-CONTACT?) (2A) (CREDIT(W)CARD)
L2      0 (NONCONTACT? OR NON-CONTACT?) (5A) (CREDIT(W)CARD)
L3      1 (NONCONTACT? OR NON-CONTACT?) (10A) (CREDIT(W)CARD)
L4      74870 RF OR (RADIO(2A)FREQUENCY)
L5      0 L3 AND L4
L6      5527 CREDIT(W)CARD
L7      618 L4 AND L6
L8      14883 NONE-CONTACT? OR NONCONTACT? OR NON-CONTACT?
L9      36 L7 AND L8
L10     17 L4(10A)L6
L11     0 L10 AND L8
L12     125537 (IC) OR (INTEGRATED(W)CIRCUIT)
L13     12719 L12 AND L4
L14     89 L8 AND L6
L15     89 L14 AND L8
L16     171 L13 AND L6
L17     60371 ANTENNA OR (WOUND(2A)COIL)
L18     27 L15 AND L17

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=> d 118 1-

1. 5,748,737, May 5, 1998, Multimedia electronic wallet with generic card; Robert N. Daggar, 380/24; 235/379, 380; 380/23, 25, 49, 50 [IMAGE AVAILABLE]
2. 5,736,935, Apr. 7, 1998, Keyless vehicle entry and engine starting system; George P. Lambropoulos, 340/825.69; 123/179.2, 179.3; 340/825.31, 825.72; 477/99 [IMAGE AVAILABLE]
3. 5,734,722, Mar. 31, 1998, Electronic travel pass; John Wolfgang Halpern, 380/49; 235/380; 380/23 [IMAGE AVAILABLE]
4. 5,708,423, Jan. 13, 1998, Zone-Based asset tracking and control system; Touraj Ghaffari, et al., 340/825.35, 572, 825.31, 825.34 [IMAGE AVAILABLE]
5. 5,682,032, Oct. 28, 1997, Capacitively coupled identity verification and escort memory apparatus; Harald Philipp, 235/492, 487 [IMAGE AVAILABLE]
6. 5,661,457, Aug. 26, 1997, Directional antenna configuration for asset tracking system; Touraj Ghaffari, et al., 340/572, 523, 825.34, 990; 342/417; 343/742 [IMAGE AVAILABLE]
7. 5,640,002, Jun. 17, 1997, Portable RF ID tag and barcode reader; Jonathan Paul Ruppert, et al., 235/472, 383, 462, 492, 493 [IMAGE AVAILABLE]
8. 5,563,491, Oct. 8, 1996, Combined parking meter and electric-vehicle battery charger with remote status receiver; Ling-yuan Tseng, 320/109; 194/904 [IMAGE AVAILABLE]
9. 5,554,984, Sep. 10, 1996, Electronic traffic tariff reception system and vehicle identification apparatus; Hisao Shigenaga, et al., 340/937, 928, 933; 701/1 [IMAGE AVAILABLE]
10. 5,525,993, Jun. 11, 1996, Microwave noncontact identification transponder using subharmonic interrogation and method of using the same; Carl W. Pobanz, et al., 342/51, 44 [IMAGE AVAILABLE]
11. 5,484,997, Jan. 16, 1996, Identification card with RF downlink capability; George W. Haynes, 235/492, 384 [IMAGE AVAILABLE]
12. 5,471,203, Nov. 28, 1995, Admission managing system; Michiyuki Sasaki, et al., 340/825.31; 235/382; 340/572, 825.54 [IMAGE AVAILABLE]
13. 5,339,000, Aug. 16, 1994, System for monitoring parked vehicles; Oded Bashan, et al., 340/932.2, 928 [IMAGE AVAILABLE]
14. 5,300,875, Apr. 5, 1994, Passive (non-contact) recharging of secondary battery cell(s) powering RFID transponder tags; John R. Tuttle, 320/138 [IMAGE AVAILABLE]
15. 5,253,162, Oct. 12, 1993, Shielding field method and apparatus; John J. Hassett, 342/457; 235/384; 340/825.35, 928; 705/13 [IMAGE AVAILABLE]
16. 5,202,550, Apr. 13, 1993, Device for machine communication in data transmission; Wolfram Koczmar, et al., 235/382, 380, 384 [IMAGE AVAILABLE]
17. 5,196,846, Mar. 23, 1993, Moving vehicle identification system; William K. Brockelsby, et al., 340/933, 825.34, 825.54, 905; 342/42, 44 [IMAGE AVAILABLE]
18. 5,164,732, Nov. 17, 1992, Highway vehicle identification system with high gain antenna; William K. Brockelsby, et al., 342/44; 235/384; 340/505, 825.54, 933, 935, 988; 342/45, 50, 51 [IMAGE AVAILABLE]
19. 5,153,842, Oct. 6, 1992, Integrated circuit package label and/or manifest system; Daniel F. Dlugos, Sr., et al., 364/478.15; 235/380 [IMAGE AVAILABLE]
20. 5,144,553, Sep. 1, 1992, Electronic vehicle toll collection system and method; John J. Hassett, et al., 705/13; 235/384; 340/928 [IMAGE AVAILABLE]
21. 5,132,687, Jul. 21, 1992, Electronic identification system; Howard A. Baldwin, et al., 342/44, 50, 51 [IMAGE AVAILABLE]
22. 5,086,389, Feb. 4, 1992, Automatic toll processing apparatus; John J. Hassett, et al., 705/13; 235/384; 340/928 [IMAGE AVAILABLE]

23. 4,941,172, Jul. 10, 1990, Preprogrammed autodialer and related process; Jacob J. Winebaum, et al., 372/352 [IMAGE AVAILABLE]
24. 4,937,581, Jun. 26, 1990, Electronic identification system; Howard A. Baldwin, et al., 342/44; 235/384; 340/825.54, 825.83; 342/45, 50, 51 [IMAGE AVAILABLE]
25. 4,870,419, Sep. 26, 1989, Electronic identification system; Howard A. Baldwin, et al., 342/50; 340/505, 825.54, 825.83; 342/51 [IMAGE AVAILABLE]
26. 4,374,403, Feb. 15, 1983, Magnetic recording and reproducing system; Mitsuaki Oshima, et al., 360/113, 110 [IMAGE AVAILABLE]
27. 3,874,586, Apr. 1, 1975, INFORMATION-CARRYING ARTICLE AND READING APPARATUS AND METHOD; Francis C. Foote, et al., 382/320; 235/449; 360/2, 40, 135 [IMAGE AVAILABLE]

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L1      0 (NONCONTACT? OR NON-CONTACT?) (2A) (CREDIT(W)CARD)
L2      0 (NONCONTACT? OR NON-CONTACT?) (5A) (CREDIT(W)CARD)
L3      1 (NONCONTACT? OR NON-CONTACT?) (10A) (CREDIT(W)CARD)
L4      74870 RF OR (RADIO(2A)FREQUENCY)
L5      0 L3 AND L4
L6      5527 CREDIT(W)CARD
L7      618 L4 AND L6
L8      14883 NONE-CONTACT? OR NONCONTACT? OR NON-CONTACT?
L9      36 L7 AND L8
L10     17 L4(10A)L6
L11     0 L10 AND L8
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L13     12719 L12 AND L4
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L15     89 L14 AND L8
L16     171 L13 AND L6
L17     60371 ANTENNA OR (WOUND(2A)COIL)
L18     27 L15 AND L17

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=> l17(7a)l6

L19 18 L17(7A)L6

=> d l19 1-

1. 5,737,423, Apr. 7, 1998, Old modified smart card or similar apparatus having a remote inspection capability; Flavio M. Manduley, 380/25, 49 [IMAGE AVAILABLE]
2. 5,608,417, Mar. 4, 1997, RF transponder system with parallel resonant interrogation series resonant response; Franklin B. de Vall, 343/895; 340/572; 343/867 [IMAGE AVAILABLE]
3. 5,562,550, Oct. 8, 1996, Multimedia golf handicap interactive touch-screen system; Victor Chartrand, 473/131; 235/375; 283/904; 364/412.1; 473/409 [IMAGE AVAILABLE]
4. 5,533,061, Jul. 2, 1996, Method and apparatus for detecting an FSK encoded carrier signal; Gregory M. Smith, et al., 375/334; 329/300, 302; 375/335 [IMAGE AVAILABLE]
5. 5,523,761, Jun. 4, 1996, Differential GPS smart antenna device; David R. Gildea, 342/357; 29/33T, 563, 564.1, 711, 722, 763; 266/207 [IMAGE AVAILABLE]
6. 5,479,172, Dec. 26, 1995, Power supply and power enable circuit for an RF/ID transponder; Gregory M. Smith, et al., 342/51 [IMAGE AVAILABLE]
7. 5,345,244, Sep. 6, 1994, Cordless SPS smart antenna device; David R. Gildea, et al., 342/357, 450; 455/11.1, 20, 575 [IMAGE AVAILABLE]
8. 5,334,824, Aug. 2, 1994, Method and apparatus for validating credit information during home delivery of order; Jerry R. Martinez, 705/41; 235/380, 381, 385; 705/24 [IMAGE AVAILABLE]
9. 5,317,318, May 31, 1994, Identification system using transponder badges, component parts therefor and applications thereof; Gerard Thomas, et al., 342/44, 51 [IMAGE AVAILABLE]
10. 5,208,446, May 4, 1993, Method and apparatus for validating credit information during home delivery of order; Jerry R. Martinez, 235/380, 381; 379/144; 455/406, 558 [IMAGE AVAILABLE]
11. 5,192,947, Mar. 9, 1993, Credit card pager apparatus; Simon Neustein, 340/825.44; 235/380; 340/311.1, 825.33; 341/22 [IMAGE AVAILABLE]
12. 4,935,745, Jun. 19, 1990, Card-type radio receiver having slot antenna integrated with housing thereof; Toshihiro Mori, et al., 343/702, 767; 455/90, 575 [IMAGE AVAILABLE]
13. 4,918,416, Apr. 17, 1990, Electronic proximity identification system; Charles A. Walton, et al., 235/493, 492; 340/825.63 [IMAGE AVAILABLE]
14. 4,894,663, Jan. 16, 1990, Ultra thin radio housing with integral antenna; Glenn F. Urbish, et al., 343/702, 881; 361/749, 814; 455/351 [IMAGE AVAILABLE]
15. 4,816,839, Mar. 28, 1989, Transponder antenna; Jeremy A. Landt, 343/795, 822 [IMAGE AVAILABLE]
16. 4,760,394, Jul. 26, 1988, Antenna for transmitting and/or receiving radio waves by way of electromagnetic induction; Mikio Takeuchi, et al., 340/825.54; 74/502.1; 340/825.69; 343/713, 788; 361/172 [IMAGE AVAILABLE]
17. 4,580,041, Apr. 1, 1986, Electronic proximity identification system with simplified low power identifier; Charles A. Walton, 235/380, 488; 902/4 [IMAGE AVAILABLE]
18. 4,388,524, Jun. 14, 1983, Electronic identification and recognition system with code changeable reactance; Charles A. Walton, 235/380, 439, 449, 488; 340/825.3, 825.31, 825.72; 342/44 [IMAGE AVAILABLE]

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L5      0 L3 AND L4
L6      5527 CREDIT(W)CARD
L7      618 L4 AND L6
L8      14883 NONE-CONTACT? OR NONCONTACT? OR NON-CONTACT?
L9      36 L7 AND L8
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=> 14(10a)

MISSING TERM AFTER 'L4(10A'

=> 14(10a)16

L10 17 L4(10A)L6

=> 110 and 18

L11 0 L10 AND L8

=> d 110 1-

1. 5,732,346, Mar. 24, 1998, Translation and connection device for radio frequency point of sale transaction systems; Mihal Lazaridis, et al., 455/406, 411, 557 [IMAGE AVAILABLE]
2. 5,724,279, Mar. 3, 1998, Computer-implemented method and computer for performing modular reduction; Josh Benaloh, et al., 364/746 [IMAGE AVAILABLE]
3. 5,689,565, Nov. 18, 1997, Cryptography system and method for providing cryptographic services for a computer application; Terrence R. Spies, et al., 380/25, 24 [IMAGE AVAILABLE]
4. 5,675,627, Oct. 7, 1997, Integrated pager and calling card; Rhoda Yaker, 455/558; 340/825.44; 379/144, 357; 455/31.2, 38.4, 566, 573 [IMAGE AVAILABLE]
5. 5,646,839, Jul. 8, 1997, Telephone-based personnel tracking system; Penina Katz, 379/93.01, 142; 704/246; 705/32 [IMAGE AVAILABLE]
6. 5,583,486, Dec. 10, 1996, Security access arrangement; Herbert Kersten, 340/568; 70/256; 180/287; 307/10.2; 340/426, 539, 825.31; 455/100, 345 [IMAGE AVAILABLE]
7. 5,581,257, Dec. 3, 1996, Radio frequency automatic identification system; Morton Greene, et al., 342/51; 235/375; 342/27 [IMAGE AVAILABLE]
8. 5,562,550, Oct. 8, 1996, Multimedia golf handicap interactive touch-screen system; Victor Chartrand, 473/131; 235/375; 283/904; 364/412.1; 473/409 [IMAGE AVAILABLE]
9. 5,541,925, Jul. 30, 1996, Point of sale system that bypasses the public telephone network; Paul Pittenger, et al., 370/389; 379/93.12; 395/200.49; 705/26 [IMAGE AVAILABLE]
10. 5,541,583, Jul. 30, 1996, Arrangement for interrogating portable data communication devices; Richard Mandelbaum, 340/825.54; 235/382; 340/825.31, 825.34, 928; 705/41 [IMAGE AVAILABLE]
11. 5,528,222, Jun. 18, 1996, Radio frequency circuit and memory in thin flexible package; Paul A. Moskowitz, et al., 340/572; 29/825, 829, 836; 340/825.3, 825.34, 825.54 [IMAGE AVAILABLE]
12. 5,491,457, Feb. 13, 1996, F-modulation amplification; Kamil Feher, 332/103, 100; 375/302, 305, 308 [IMAGE AVAILABLE]
13. 5,477,215, Dec. 19, 1995, Arrangement for simultaneously interrogating a plurality of portable radio frequency communication devices; Richard Mandelbaum, 340/825.34; 235/380; 340/825.54, 928 [IMAGE AVAILABLE]
14. 5,444,763, Aug. 22, 1995, Translation and connection device for radio frequency point of sale transaction systems; Mihal Lazaridis, et al., 455/403; 235/380 [IMAGE AVAILABLE]
15. 5,276,919, Jan. 4, 1994, Radio with reusable breakaway switch; Charles P. Schultz, 455/95; 200/61.7; 455/128 [IMAGE AVAILABLE]
16. 5,138,650, Aug. 11, 1992, Cordless telephone with internal debit and credit memory; John I. Stahl, et al., 455/408; 379/114, 145; 455/465 [IMAGE AVAILABLE]
17. 4,871,997, Oct. 3, 1989, Proximity sensor apparatus; Luc W. Adriaenssens, et al., 340/539, 531; 455/9, 229 [IMAGE AVAILABLE]

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L13     12719 L12 AND L4
L14     89 L8 AND L6
L15     89 L14 AND L8
L16     171 L13 AND L6

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=> d 115 1-

1. 5,754,654, May 19, 1998, Electronic ticket vending system and method thereof; Masaaki Hiroya, et al., 380/24, 23 [IMAGE AVAILABLE]
2. 5,748,737, May 5, 1998, Multimedia electronic wallet with generic card; Robert N. Daggar, 380/24; 235/379, 380; 380/23, 25, 49, 50 [IMAGE AVAILABLE]
3. 5,747,413, May 5, 1998, Reversible thermosensitive recording material and method of forming and erasing images; Tetsuya Amano, et al., 503/201, 207, 208 [IMAGE AVAILABLE]
4. 5,745,555, Apr. 28, 1998, System and method using personal identification numbers and associated prompts for controlling unauthorized use of a security device and unauthorized access to a resource; Andrew R. Mark, 235/380; 379/67, 355, 361 [IMAGE AVAILABLE]
5. 5,736,935, Apr. 7, 1998, Keyless vehicle entry and engine starting system; George P. Lambropoulos, 340/825.69; 123/179.2, 179.3; 340/825.31, 825.72; 477/99 [IMAGE AVAILABLE]
6. 5,734,722, Mar. 31, 1998, Electronic travel pass; John Wolfgang Halpern, 380/49; 235/380; 380/23 [IMAGE AVAILABLE]
7. 5,732,133, Mar. 24, 1998, System and method for selecting and generating telephone access numbers for limiting access to a telephone service; Andrew R. Mark, 379/355, 93.02, 196, 201, 280, 288 [IMAGE AVAILABLE]
8. 5,731,116, Mar. 24, 1998, Electrostatic information recording medium and electrostatic information recording and reproducing method; Makoto Matsuo, et al., 430/56, 48, 60, 66 [IMAGE AVAILABLE]
9. 5,719,939, Feb. 17, 1998, System and method of verifying the legitimacy of a product against forgery; Teunis Tel, 380/23; 283/73, 107 [IMAGE AVAILABLE]
10. 5,718,996, Feb. 17, 1998, Electrostatic information recording medium and electrostatic information recording and reproducing method; Masayuki Iijima, et al., 430/56, 20, 48 [IMAGE AVAILABLE]
11. 5,708,423, Jan. 13, 1998, Zone-Based asset tracking and control system; Touraj Ghaffari, et al., 340/825.35, 572, 825.31, 825.34 [IMAGE AVAILABLE]
12. 5,682,032, Oct. 28, 1997, Capacitively coupled identity verification and escort memory apparatus; Harald Philipp, 235/492, 487 [IMAGE AVAILABLE]
13. 5,675,452, Oct. 7, 1997, Thin data storage device having a flexible recordable disk and recording heads arranged on both sides of the disk; Anil Nigam, 360/97.02, 99.01, 99.08 [IMAGE AVAILABLE]
14. 5,668,365, Sep. 16, 1997, Card upside-down insertion preventative apparatus; Toshiyasu Ito, et al., 235/486, 479, 482, 483 [IMAGE AVAILABLE]
15. 5,661,457, Aug. 26, 1997, Directional antenna configuration for asset tracking system; Touraj Ghaffari, et al., 340/572, 523, 825.34, 990; 342/417; 343/742 [IMAGE AVAILABLE]
16. 5,640,002, Jun. 17, 1997, Portable RF ID tag and barcode reader; Jonathan Paul Ruppert, et al., 235/472, 383, 462, 492, 493 [IMAGE AVAILABLE]
17. 5,638,103, Jun. 10, 1997, Method for recording and reproducing information, apparatus therefor and recording medium; Hiroyuki Obata, et al., 347/164 [IMAGE AVAILABLE]
18. 5,606,159, Feb. 25, 1997, Information recording medium cleaning mechanism; Hideo Kurihara, 235/438, 475 [IMAGE AVAILABLE]
19. 5,587,264, Dec. 24, 1996, Electrostatic information recording medium and electrostatic information recording and reproducing method; Masayuki Iijima, et al., 430/57, 31, 48, 60, 62 [IMAGE AVAILABLE]
20. 5,583,933, Dec. 10, 1996, Method and apparatus for the secure communication of data; Andrew R. Mark, 379/355; 235/380; 379/93.28, 257, 354, 361, 418, 444; 380/9 [IMAGE AVAILABLE]
21. 5,580,794, Dec. 3, 1996, Disposable electronic assay device; Michael P. Allen, 436/169; 422/58, 82.05, 82.09 [IMAGE AVAILABLE]

22. 5,563,491, Oct. 8, 1996, Combined parking meter and electric-vehicle battery charger with remote status receiver; Ling-yuan Tseng, 320/109; 194/904 [IMAGE AVAILABLE]

23. 5,554,984, Sep. 10, 1996, Electronic traffic tariff reception system and vehicle identification apparatus; Hisao Shigenaga, et al., 340/937, 928, 933; 701/1 [IMAGE AVAILABLE]

24. 5,550,358, Aug. 27, 1996, Non-contacting transaction system; Robert A. R. Tait, et al., 235/360, 379, 382 [IMAGE AVAILABLE]

25. 5,525,993, Jun. 11, 1996, Microwave noncontact identification transponder using subharmonic interrogation and method of using the same; Carl W. Pobanz, et al., 342/51, 44 [IMAGE AVAILABLE]

26. 5,523,618, Jun. 4, 1996, Electronic integrated circuit label; Jean Claude Berney, 257/679; 174/52.4, 260; 235/380, 487, 488, 492; 257/678, 738 [IMAGE AVAILABLE]

27. 5,499,707, Mar. 19, 1996, Automated merchandising kiosk; Rudy Steury, 194/217; 186/36; 221/2, 264; 235/381; 414/280 [IMAGE AVAILABLE]

28. 5,484,997, Jan. 16, 1996, Identification card with RF downlink capability; George W. Haynes, 235/492, 384 [IMAGE AVAILABLE]

29. 5,471,203, Nov. 28, 1995, Admission managing system; Michiyuki Sasaki, et al., 340/825.31; 235/382; 340/572, 825.54 [IMAGE AVAILABLE]

30. 5,468,947, Nov. 21, 1995, Pocket size data capture unit with processor and shell modules; Arvin D. Danielson, et al., 235/472, 462 [IMAGE AVAILABLE]

31. 5,439,768, Aug. 8, 1995, Electrostatic information recording medium and electrostatic information recording and reproducing method; Makoto Matsuo, et al., 430/56, 45, 46, 48, 60, 66 [IMAGE AVAILABLE]

32. 5,434,401, Jul. 18, 1995, Signal coupler; Philippe B. Bauser, 235/454, 380, 472 [IMAGE AVAILABLE]

33. 5,426,701, Jun. 20, 1995, Cable television converter box with a smart card connector underneath; Charles Herrmann, et al., 380/52; 348/10; 380/16; 455/6.2 [IMAGE AVAILABLE]

34. 5,396,142, Mar. 7, 1995, Positioning apparatus; John Koblanski, 310/328; 358/496; 359/213; 369/44.18 [IMAGE AVAILABLE]

35. 5,377,060, Dec. 27, 1994, ultra slim data storage module utilizing plural flexible disks; Anil Nigam, 360/99.01, 98.02 [IMAGE AVAILABLE]

36. 5,354,097, Oct. 11, 1994, Security of objects or documents; Teunis Tel, 283/72, 83, 107 [IMAGE AVAILABLE]

37. 5,339,000, Aug. 16, 1994, System for monitoring parked vehicles; Oded Bashan, et al., 340/932.2, 928 [IMAGE AVAILABLE]

38. 5,300,875, Apr. 5, 1994, Passive (non-contact) recharging of secondary battery cell(s) powering RFID transponder tags; John R. Tuttle, 320/138 [IMAGE AVAILABLE]

39. 5,265,162, Nov. 23, 1993, Portable pin card; George Bush, et al., 380/24 [IMAGE AVAILABLE]

40. 5,253,162, Oct. 12, 1993, Shielding field method and apparatus; John J. Hassett, 342/457; 235/384; 340/825.35, 928; 705/13 [IMAGE AVAILABLE]

41. 5,241,161, Aug. 31, 1993, Smart card integrated in a wristwatch and having logic unit controlling the automatic identification process and the data transfer; Marc Zuta, 235/382, 484 [IMAGE AVAILABLE]

42. 5,227,614, Jul. 13, 1993, Core computer processor module, and peripheral shell module assembled to form a pocket size data capture unit; Arvin D. Danielson, et al., 235/380, 439, 462, 472; 382/315 [IMAGE AVAILABLE]

43. 5,221,837, Jun. 22, 1993, Non-contact envelope counter using distance measurement; Michael P. Walgren, et al., 250/222.1; 377/53 [IMAGE AVAILABLE]

44. 5,202,550, Apr. 13, 1993, Device for machine communication in data transmission; Wolfram Koczmar, et al., 235/382, 380, 384 [IMAGE AVAILABLE]

45. 5,196,846, Mar. 23, 1993, Moving vehicle identification system; William K. Brockelsby, et al., 340/933, 825.34, 825.54, 905; 342/42, 44 [IMAGE AVAILABLE]

46. 5,173,840, Dec. 22, 1992, Molded IC card; Shojiro Kodai, et al., 361/737; 235/488, 492; 257/687; 361/752, 783 [IMAGE AVAILABLE]

47. 5,164,732, Nov. 17, 1992, Highway vehicle identification system with high gain antenna; William K. Brockelsby, et al., 342/44; 235/384; 340/505, 825.54, 933, 935, 988; 342/45, 50, 51 [IMAGE AVAILABLE]

48. 5,161,233, Nov. 3, 1992, Method for recording and reproducing information, apparatus therefor and recording medium; Makoto Matsuo, et al., 399/136; 355/77; 430/48 [IMAGE AVAILABLE]

49. 5,153,842, Oct. 6, 1992, Integrated circuit package label and/or manifest system; Daniel F. Dlugos, Sr., et al., 364/478.15; 235/380 [IMAGE AVAILABLE]

50. 5,144,553, Sep. 1, 1992, Electronic vehicle toll collection system and method; John J. Hassett, et al., 705/13; 235/384; 340/928 [IMAGE AVAILABLE]

51. 5,132,687, Jul. 21, 1992, Electronic identification system; Howard A. Baldwin, et al., 342/44, 50, 51 [IMAGE AVAILABLE]

52. 5,130,519, Jul. 14, 1992, Portable pin card; George Bush, et al., 235/380, 379; 380/24, 50; 902/2, 5 [IMAGE AVAILABLE]

53. 5,103,486, Apr. 7, 1992, Fingerprint/signature synthesis; Victor J. Grippi, 382/116 [IMAGE AVAILABLE]

54. 5,086,389, Feb. 4, 1992, Automatic toll processing apparatus; John J. Hassett, et al., 705/13; 235/384; 340/928 [IMAGE AVAILABLE]

55. 5,054,090, Oct. 1, 1991, Fingerprint correlation system with

parallel FIFO processor; Arnold W. Knight, et al., 382/127, 222 [IMAGE AVAILABLE]

56. 5,047,616, Sep. 10, 1991, Reading device for reading non-stationary data storage means; Klaus Maresch, et al., 235/435, 454, 457 [IMAGE AVAILABLE]

57. 4,975,805, Dec. 4, 1990, Apparatus for extracting an electronic circuit module from a housing; Richard W. Schmutzler, 361/754; 360/99.02, 99.06; 361/728, 730; 439/152, 160 [IMAGE AVAILABLE]

58. 4,968,873, Nov. 6, 1990, Smart card issuing and receiving apparatus; Juergen Dethloff, et al., 235/380, 375, 379, 487, 492; 902/11, 26 [IMAGE AVAILABLE]

59. 4,960,983, Oct. 2, 1990, Noncontact type IC card and system for noncontact transfer of information using the same; Takeshi Inoue, 235/449, 488, 492, 493 [IMAGE AVAILABLE]

60. 4,941,172, Jul. 10, 1990, Preprogrammed autodialer and related process; Jacob J. Winebaum, et al., 379/355, 352 [IMAGE AVAILABLE]

61. 4,937,581, Jun. 26, 1990, Electronic identification system; Howard A. Baldwin, et al., 342/44; 235/384; 340/825.54, 825.83; 342/45, 50, 51 [IMAGE AVAILABLE]

62. 4,912,317, Mar. 27, 1990, Pitch match detecting and counting system with tilted optical axis; William L. Mohan, et al., 250/222.2; 377/53 [IMAGE AVAILABLE]

63. 4,877,947, Oct. 31, 1989, Transaction processing system; Toru Mori, 705/41; 235/379; 340/825.34, 825.35; 705/17, 44; 902/22, 26; D18/4 [IMAGE AVAILABLE]

64. 4,870,419, Sep. 26, 1989, Electronic identification system; Howard A. Baldwin, et al., 342/50; 340/505, 825.54, 825.83; 342/51 [IMAGE AVAILABLE]

65. 4,837,422, Jun. 6, 1989, Multi-user card system; Juergen Dethloff, et al., 235/380, 379; 340/825.33; 902/26 [IMAGE AVAILABLE]

66. 4,829,169, May 9, 1989, IC card having state marker for record access; Hiroshi Watanabe, 235/492, 380 [IMAGE AVAILABLE]

67. 4,825,056, Apr. 25, 1989, Thin-film electromagnetic transducer; Toshihiko Ohta, et al., 235/449, 493; 336/20 [IMAGE AVAILABLE]

68. 4,812,634, Mar. 14, 1989, IC card with a solar battery; Satoshi Ohta, et al., 235/492, 487 [IMAGE AVAILABLE]

69. 4,810,862, Mar. 7, 1989, System for judging propriety of use of an integrated circuit card with a card terminal; Harumi Nakano, et al., 235/380, 487, 492 [IMAGE AVAILABLE]

70. 4,771,443, Sep. 13, 1988, Pitch match detecting and counting system; William L. Mohan, et al., 377/8, 28 [IMAGE AVAILABLE]

71. 4,761,543, Aug. 2, 1988, Holographic security devices and systems; Kenneth J. Hayden, 235/457, 485 [IMAGE AVAILABLE]

72. 4,749,982, Jun. 7, 1988, Intelligent card; Kenji Rikuna, et al., 340/146.2; 235/380 [IMAGE AVAILABLE]

73. 4,727,244, Feb. 23, 1988, IC card system; Harumi Nakano, et al., 235/380, 487, 492; 902/26 [IMAGE AVAILABLE]

74. 4,676,676, Jun. 30, 1987, Embossing imprinter including an electronic printer; Hiroyasu Bitoh, 400/82; 101/269, 349.1, 375 [IMAGE AVAILABLE]

75. 4,628,974, Dec. 16, 1986, Apparatus for automated assembly of flowable materials; Ronald K. Meyer, 141/129, 103, 104, 168, 271; 222/129.4; 364/479.06, 479.07, 479.12; 901/17 [IMAGE AVAILABLE]

76. 4,602,351, Jul. 22, 1986, Device for reading and writing IC-external storage cards; Norio Shimamura, et al., 365/52; 235/441; 439/248, 326, 376, 929 [IMAGE AVAILABLE]

77. 4,597,330, Jul. 1, 1986, Depository envelope printing mechanism; Jeffrey A. Hill, et al., 101/93.01; 109/24.1; 235/379; 346/22 [IMAGE AVAILABLE]

78. 4,455,719, Jun. 26, 1984, Stopper using a magnet; Tamao Morita, 24/303 [IMAGE AVAILABLE]

79. 4,425,511, Jan. 10, 1984, Planar coil apparatus employing a stationary and a movable board; Amnon Brosh, 307/106, 116; 324/207.16, 207.17, 207.22, 207.26; 336/73, 75, 79, 115, 117, 119 [IMAGE AVAILABLE]

80. 4,374,403, Feb. 15, 1983, Magnetic recording and reproducing system; Mitsuaki Oshima, et al., 360/113, 110 [IMAGE AVAILABLE]

81. 4,095,781, Jun. 20, 1978, Currency dispensing apparatus; Jerome L. Kistner, et al., 271/12; 221/21, 211; 271/30.1, 94, 98, 171, 263, 902; 902/16 [IMAGE AVAILABLE]

82. 3,874,586, Apr. 1, 1975, INFORMATION-CARRYING ARTICLE AND READING APPARATUS AND METHOD; Francis C. Foote, et al., 382/320; 235/449; 360/2, 40, 135 [IMAGE AVAILABLE]

83. 3,814,905, Jun. 4, 1974, EMBOSSED CARD READER; Willis Thompson Lawrence, et al., 235/448; 250/555 [IMAGE AVAILABLE]

84. 3,793,565, Feb. 19, 1974, POLARIZED LIGHT-CONTROLLED COMBINATION DOOR LOCK; Gordon Smith, 361/172, 176 [IMAGE AVAILABLE]

85. 3,790,957, Feb. 5, 1974, KEY AUTOMATED DATA COLLECTION, CONTROL AND SOURCE INFORMATION SYSTEM; Lee R. Dukes, et al., 340/825.31 [IMAGE AVAILABLE]

86. 3,783,205, Jan. 1, 1974, KEYBOARD SWITCH MATRIX ASSEMBLY WITH IMPROVED GUIDE MEANS FOR REDUCING TRANSFER OF BOUNDING MOTION TO MOVABLE CONDUCTOR; Henry J. Boulanger, 200/5A, 516 [IMAGE AVAILABLE]

87. 3,711,832, Jan. 16, 1973, CODE NUMBER DETECTING DEVICE; Shunro Yamawaki, et al., 340/825.3 [IMAGE AVAILABLE]

88. 3,707,609, Dec. 26, 1972, DIAPHRAGM PUSHBUTTON SWITCH ARRAY FOR

KEYBOARDS; Martin H. Dapot, et al., 200/5R, 5A, 516; 341/34 [IMAGE
AVAILABLE]

89. 3,652,829, Mar. 28, 1972, DISCRIMINATION CARD FOR CARD READER; Ken
Hayakawa, et al., 235/487 [IMAGE AVAILABLE]